

## Contesting the Flow of the Milwaukee River

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### Abstract:

The early 1960s to the mid-1970s demonstrates a unique time when the human-environmental relationship changed and different interests debated how the landscape should be transformed in the Milwaukee River Watershed (MRW). Examining the plans to create a diversion channel from Saukville to Lake Michigan, a water reservoir, twice as large as lake Geneva, near Waubeka, Wisconsin, or environmental corridors, limiting the human-built landscapes in the 100-year floodplain of the Milwaukee River, I argue that the failure to gain a consensus or a holistic solution to the concern of flooding was, not only, the inability to receive required funding or convince people of the merits of a benefit-to-cost analysis, but the inability to find common ground between people's different conception of their relationship with nature. In addition, the solutions proposed demonstrate both a vision of nature that sought to control water drainage in the MRW and an attempt create a landscape to suit the goals of those in power.

The study of landscape history contributes its share to the new approach by reminding us, among other things, that since the beginning of history humanity has modified and scarred the environment to convey some message, and that for our own peace of mind we should learn to differentiate among those wounds inflicted by greed and destructive fury, those which serve to keep us alive, and

those which are inspired by the love of order and beauty, in obedience to some divine law.<sup>1</sup>

Human interactions with the Milwaukee River Watershed have always reflected human interests and their understanding of the watershed's hydraulic forces. As Milwaukee's manufacturing industry began to move off the riverbanks and people moved out of the city, people's relationship with the river began to change in the early 1960s to the mid-1970s. In addition, urban planners searched for ways that more people could gain access to the natural resources in Southeastern Wisconsin believing that the population was going to double. Examining the plans to control the water flow of the Milwaukee River and zone lands in the watershed to meet different development expectations, I argue that the failure to gain a consensus or a holistic solution reflected the inability to find common ground between people's conceptions of nature and human's relationship with the natural resources. In addition, the solutions proposed demonstrate both a vision of nature that sought to control water drainage in the MRW and an attempt create a landscape to suit the goals of those in power. Before I examine the different debates surrounding the attempts to manage the MRW, I will provide an overview of how the landscape of the MRW has been changed through both geologic and hydrologic process and human interactions for thousands of years. In addition, I will also provide the historical context, which provides a partial lens to help understand not only the different perspectives of those involved in the debates, but also how these debates became a concern.

Even though humans have interacted with the land and waters of the Milwaukee River Watershed (MRW) for hundreds of years, geologic forces associated with the last Ice Age, ten

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<sup>1</sup> John Brinckerhoff Jackson, *A Sense of Place, A Sense of Time* (New Haven: Yale University Press, 1994), vii.

thousand years ago, remain the largest influences on the landscape.<sup>2</sup> The MRW is approximately 845 square miles, stretching from its headwaters in the southern parts of both Fond du Lac and Sheboygan Counties to downtown Milwaukee, where it empties into Lake Michigan, 95 miles from its source. The northern area of the flood plain is 521ft. above the average level of Lake Michigan.<sup>3</sup> The predominantly gravel soils in the northern region filter the water into groundwater reservoirs. In the southern region the soil becomes more impervious and the land becomes flatter, making it more prone to flood in the spring during snowmelts and spring rains.<sup>4</sup>

As glaciers carved and transformed the landscape thousands of years ago, humans have also shaped the landscape of the MRW. In order to survive, the Potawatomi adapted to the hydraulic forces of the MRW and harvested “Menominee” (wild rice) from wetlands and fished the stream for sources of protein. The Potawatomi found the swampy and flooded areas of the Southern part of the MRW full of resources.<sup>5</sup> When the early European settlers arrived, they began turning the wetlands into canals, leveling bluffs to fill the wetlands, and preparing the land for the farmers’ tills.<sup>6</sup>

Matthew Gandy in *Concrete and Clay* argues that the reshaping of nature has made urban life possible and the meaning of urban space involves the transformation of nature into a new synthesis often to enhance economic efficiency, but with little concerns for the urban poor.<sup>7</sup> In the late 1830s such loftier goals for the region were envisioned by Byron Kilbourn, who began

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<sup>2</sup> Southeastern Wisconsin Regional Planning Commission, *Milwaukee River Watershed Planning Program Prospectus* (Waukesha, WI, 1966), 7.

<sup>3</sup> Milwaukee River Technical Study Committee, *The Milwaukee River: An Inventory of Its Problems, an Appraisal of Its Potentials* (Milwaukee, WI: City of Milwaukee, 1968), 35.

<sup>4</sup> US Army Engineer, District Chicago, “Preliminary Report: Summary Flood Control Study of the Milwaukee River and Tributaries, Wisconsin” (Chicago, Ill., April 1964), 1, Henry W. Maier Administration 1960-1988, Box 83, Folder 20, State Historical Society of Wisconsin; Department of City Development, *Preliminary Report: On the Milwaukee River*, 1963, 7-8.

<sup>5</sup> John Gurda, *Milwaukee: A City Built on Water* (Milwaukee, WI, 2015), <http://www.pbs.org/show/milwaukee-city-built-water/>; John Gurda, *The Making of Milwaukee*, Third edition (Milwaukee: Milwaukee County Historical Society, 2008).

<sup>6</sup> Sandra Ackerman, *Milwaukee: Then and Now* (San Diego: Thunder Bay Press, 2004), 14; John Gurda, *Milwaukee: City of Neighborhoods* (Milwaukee: Historic Milwaukee, Inc, 2015), 32, 37.

<sup>7</sup> Matthew Gandy, *Concrete and Clay: Reworking Nature in New York City* (Cambridge, Mass: MIT Press, 2002), 2, 37.

construction of the Milwaukee and Rock River Canal in an attempt to connect Milwaukee, not only to the Atlantic Ocean via the St. Lawrence Seaway, but also New Orleans via the Mississippi River. Despite Kilbourn's failed attempt, Milwaukee remained a major shipping destination on the Great Lake Waterway, especially after the reconfiguring of the Milwaukee Harbor for shipping.<sup>8</sup> In addition pioneer villages constructed power gristmills and saw mills as they continued to settle further north along the Milwaukee River. The northern MRW reshaped for the planting of wheat and shearing of sheep to supply the mills was further transformed after the 1880s to support dairy farms.<sup>9</sup> In the late nineteenth century and early twentieth century many German and other European immigrants settled both in downtown Milwaukee, working in the manufacturing industries and northern parts of the MRW, utilizing new technology to till the fields with tractors.<sup>10</sup>

Human labor with the aid of technology continued to reshape the landscape to serve various interests. Robert Morris in *Glendale Wisconsin: Rich Past, Bright Future* describes the frequent flooding and marsh areas in the Glendale area prior to the 1930s. Yet, he notes that these concerns were largely addressed during the New Deal as various federal programs put human labor and earth-moving equipment to work. They attempted to control the hydrologic labor of the MRW with levees and dams to contain floods.<sup>11</sup> Human attempts to control the power and energy of the Milwaukee River was a common goal to both protect property interests and attempt to bring order to the MRW. Matthew Kingle in *Emerald City* argues that attempts to

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<sup>8</sup> Department of City Development, *Preliminary Report: On the Milwaukee River*, 24–31; Gurda, *Milwaukee: A City Built on Water*.

<sup>9</sup> Southeastern Wisconsin Regional Planning Commission, *A Comprehensive Plan for the Milwaukee River Watershed: Inventory Findings and Forecasts*, vol. One (Waukesha, WI: WI Department of Natural Resources: The US Department of Housing and Urban Development: US Department of the Interior, 1970), 35, [http://www.sewrpc.org/SEWRPCFiles/Publications/pr/pr-013\\_vol\\_01\\_comp\\_plan\\_for\\_the\\_milwaukee\\_river\\_watershed.pdf](http://www.sewrpc.org/SEWRPCFiles/Publications/pr/pr-013_vol_01_comp_plan_for_the_milwaukee_river_watershed.pdf).

<sup>10</sup> Southeastern Wisconsin Regional Planning Commission, One: 35.

<sup>11</sup> Robert R. Morris, *Glendale, Wisconsin: Rich Past, Bright Future, 1950-2000* (Glendale: Wisconsin 50th Anniversary Committee, 2000), 26,43.

control nature often include a story of how people attempt to control each other. Within 100 years of European immigration to the Milwaukee area, the Potawatomi and other native Americans were, not only forcefully removed through wars, but the landscape that provided their means of survival was dwindling rapidly. By the early 1960s less than half of the original wetlands of the MRW remained.<sup>12</sup>

Catherine McNeur in *Taming Manhattan* demonstrates how Manhattan officials' in the 19<sup>th</sup> century attempt to erase urban agriculture resulted in debates over what was appropriate in urban versus rural spaces. In addition, wealthy patrons desired parklands for leisure while the poor sought the same spaces for labor and survival.<sup>13</sup> After WWII, US citizens took advantage of many government programs to build single-family homes, rapidly extending metropolitan areas into the rural landscapes. Unlike early European migrants to the area who shaped the landscape for agricultural interests, many of these city migrants attempted to change the landscape to meet "urban" needs. A 1959 Study of Mequon, WI reported that 170,000 acres of agricultural land had been converted for urban expansion in the seven counties of SE Wisconsin since 1945. This was equivalent to the transformation of a 115-acre farm to a metropolitan landscape every three days.<sup>14</sup> These urban migrants transformed the landscape for their homes on spacious lots. Also, they did not intend to work the land to produce food. For example, Glendale was advertised as a place that is close to everything with low taxes. Furthermore, the new expressway would provide suburbanites' quick access to work and places to shop.<sup>15</sup> However, this conception of humans' relationship with the landscape clashed with rural residents' and others' perception of place.

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<sup>12</sup> Southeastern Wisconsin Regional Planning Commission, *A Comprehensive Plan for the Milwaukee River Watershed: Inventory Findings and Forecasts*, One: 65.

<sup>13</sup> Catherine McNeur, *Taming Manhattan: Environmental Battles in the Antebellum City* (Cambridge, Mass: Harvard University Press, 2014), 4.

<sup>14</sup> Charles Ball, "Economic and Ecologic Base Study, City of Mequon, Wisconsin" (Milwaukee: Nelson-Ball and Associates, August 26, 1959), 2.

<sup>15</sup> Morris, *Glendale, Wisconsin: Rich Past, Bright Future, 1950-2000*, 59–60.

Some scholars worried that quick influx of people to these rural lands would destroy nature and simply spread urban problems across a wider area. For example, William Whyte in “A Plan to Save the Vanishing Countryside”<sup>16</sup> and Peter Blake in *God’s Own Junkyard*<sup>17</sup> depicted the carnage or “rape” of the countryside. Between 1940 and 1960 the population of the Metropolitan area of Southeast Wisconsin expanded from 745,000 to 1,025,400.<sup>18</sup> Developers began to question how the Milwaukee metropolitan area could grow to an estimated 2.7 million people by 1990.<sup>19</sup> One of the ideas was for the construction of “new towns” to better distribute population or build “another Milwaukee.”<sup>20</sup>

However, urban sprawl was also seen as a tax on the hydrologic systems that existed for centuries. In 1960 WI Governor Gaylord Nelson helped to create the Southeastern Wisconsin Regional Planning Commission (SEWRPC) to foster economic growth and the protection of natural resources. He hoped the creation of SEWRPC would foster development with the recreational sites in close proximity to metropolitan areas.<sup>21</sup> K.W. Bauer, the chairman of SEWRPC, warned that urban sprawl, without proper planning, might contribute to more flooding and increased water pollution, deteriorating fish and water life habitats. In addition, he contended that development on floodplains decreases water groundwater recharge.<sup>22</sup> Across the United States from the mid-1950s to the mid-1970s, almost a million-acres of marshes, swamps, bogs,

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<sup>16</sup> Adam W. Rome, “William Whyte, Open Space, and Environmental Activism,” *Geographical Review* 88, no. 2 (1998): 259, <https://doi.org/10.2307/215804>.

<sup>17</sup> Peter Blake, *God’s Own Junkyard: The Planned Deterioration of America’s Landscape* (New York: Holt, Rinehart and Winston, 1964).

<sup>18</sup> US Army Engineer, District Chicago, “Preliminary Report: Summary Flood Control Study of the Milwaukee River and Tributaries, Wisconsin,” 3.

<sup>19</sup> “Destroying the Character of Southeastern Wisconsin Part II,” *Milwaukee Magazine*, February 1970, 22, Milwaukee Magazines, UW-Milwaukee, Special Collections.

<sup>20</sup> “Destroying the Character of Southeastern Wisconsin Part II,” 28.

<sup>21</sup> Paul G. Hayes, *Master Planners: Fifty Years of Regional Planning in Southeastern Wisconsin, 1960-2010* (Milwaukee, Wis.: Marquette University Press, 2010), 23.

<sup>22</sup> K.W. Bauer, “Resource Conservation and Regional Planning Talk” (Milwaukee County Museum: The Milwaukee River Watershed, October 25, 1968), 3,11-12, Izaak Walton League of America, Milwaukee Chapter, Box 2, Folder Milwaukee River Restoration Council, State Historical Society of Wisconsin; Southeastern Wisconsin Regional Planning Commission, *Milwaukee River Watershed Planning Program Prospectus*, 22.

and coastal estuaries were destroyed by urban development.<sup>23</sup> SEWRPC reported that some 1,700 acres in the lower MRW had been taken from their natural floodwater storage and wildlife habitat uses and converted to residential and industrial landscapes.<sup>24</sup> In effect the human-built landscapes that were being constructed did not recognize or failed to address the net impact on reducing the ability of the watershed's labor to recharge the water supply, remove water from the land surface, and filter polluted water before it entered the human drinking supply. Also, the Milwaukee Department of City Development (MDCD) noted that flooding occurs in urban areas where structures built on floodplains and paved roads, driveways and rooftops have increased runoff. Thus, development in the northern areas of the MRW could have adverse effects on city's ability to control the flow of the Milwaukee River.<sup>25</sup>

Michael Rawson in *Eden on the Charles* contends that nature must be seen in its physical and cultural complexity. Rawson depicts human-environmental interactions as a web, which is constantly evolving as a result of technological and scientific advancements, shifts in political interests, and new conceptions of leisure.<sup>26</sup> In addition, not only is the environment responding to human actions, but also humans must adapt to changes in the environment.<sup>27</sup> Many Milwaukee area political leaders and organizations concerned with the expected population explosion called for the development of lakes and protection of open spaces for recreation. For example, the Wisconsin Conservation Department supported legislation to ensure greater access to lakes and the need to clean rivers and lakes of debris, which clogged the streams and created "mud holes"

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<sup>23</sup> Rome, "William Whyte, Open Space, and Environmental Activism," 260.

<sup>24</sup> Southeastern Wisconsin Regional Planning Commission, *Milwaukee River Watershed Planning Program Prospectus*, 25.

<sup>25</sup> Department of City Development, *Preliminary Report: On the Milwaukee River*, 8; Col. A.R. Striegl, "Milwaukee's Flood Problem: Special Report," *Milwaukee Engineering*, June 1960, 21.

<sup>26</sup> Michael Rawson, *Eden on the Charles: The Making of Boston* (Cambridge: Harvard University Press, 2010), ix-x.

<sup>27</sup> Rawson, 3.

of the lakes.<sup>28</sup> Also, a SEWRPC study revealed the high demand for swimming, boating and fishing in the MRW.<sup>29</sup> The northern MRW was not only important because it is the origin of surface waters, but also, it's a place for weekend tourists' recreational interests. For example Long Lake is filled with skiers, fisherman and bathers from the metropolitan areas of Milwaukee and Chicago on summer weekends. Dairy farming and agriculture was important but the total number of economic users were primarily concerned with the expansion of the recreational opportunities of the MRW landscape.<sup>30</sup> This transition period represents the cultural complexity in which the debates over changing the landscape of the MRW existed.

In order to accomplishment the goals of economic development, expanding suburban residences and recreational interests, urban planners envisioned methods to control the water flow of the Milwaukee River. The MRW's rapid draining of the landscape during the floods of April 1959 and March 1960 motivated an urban planner's response. The property damage of both the 1959 and 1960 floods resulted in an estimated \$400,000 dollars each year. The largest floods during the 20th century were recorded in March 1918 and August 1924. Property damage for the 1918 flood was not provided, but the 1924 flood was over one million dollars.<sup>31</sup> Annual flood damages (in 1964 dollars) throughout the MRW increase 100 percent in 20 years to \$123,000.<sup>32</sup> Although floods are viewed as a natural event, flood damages are related to the

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<sup>28</sup> Cyril Kabat and Melville Cohee, "Milwaukee River Watershed: Outdoor Recreation Demands and Ecological Problems" (Conference on Resource Conservation through Regional Planning: The Milwaukee River Watershed: Wisconsin Department of Natural Resources, October 26, 1968).

<sup>29</sup> Southeastern Wisconsin Regional Planning Commission, *A Comprehensive Plan for the Milwaukee River Watershed: Inventory Findings and Forecasts*, One:397–99.

<sup>30</sup> Southeastern Wisconsin Regional Planning Commission, *Milwaukee River Watershed Planning Program Prospectus*, 13–14.

<sup>31</sup> US Army Engineer, District Chicago, "Preliminary Report: Summary Flood Control Study of the Milwaukee River and Tributaries, Wisconsin," 6; Southeastern Wisconsin Regional Planning Commission, *A Comprehensive Plan for the Milwaukee River Watershed: Inventory Findings and Forecasts*, One:171.

<sup>32</sup> Southeastern Wisconsin Regional Planning Commission, *Milwaukee River Watershed Planning Program Prospectus*, 23.

degree of urbanization in the watershed and residential and industrial occupancy in the floodplain.<sup>33</sup>

Floods are described as times that the water flow in the riverbanks exceeds the river's capacity. The US Army Corps of Engineers measures the capacity of a river in cubic feet per second (cfs). This is a measurement taken at various points along the river, measuring how much water can flow past a specific point each second. Therefore, a river's capacity is the amount of water (cfs) the river is able to move inside of its banks before flooding occurs. The Milwaukee River's capacity as Saukville is 3000cfs and 6000cfs near the river's mouth.<sup>34</sup> The average flow of the Milwaukee River is approximately 400cfs.<sup>35</sup> According to the MDCCD, between 1914 and 1960, sixteen floods averaged over 6000cfs.<sup>36</sup> The 1918 and 1924 floods had peak water flows over 14000cfs, 35 times the average flow of the river.<sup>37</sup>

Although the City of Milwaukee had some damage during these floods, the US Corps of Engineering estimated a peak discharge of 35,000cfs was a statistical possibility.<sup>38</sup> This potential flood would be catastrophic to public and private properties. In addition, changes in the level of Lake Michigan, development around the Milwaukee River banks, changes in the river channels depth and width could put the City's public and private properties at risk during lower flows.<sup>39</sup> Faced with these possible threats and yearly damages resulting from the MRW's rapid drainage

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<sup>33</sup> Southeastern Wisconsin Regional Planning Commission, 23.

<sup>34</sup> US Army Engineer, District Chicago, "Preliminary Report: Summary Flood Control Study of the Milwaukee River and Tributaries, Wisconsin," 3; Department of City Development, *Preliminary Report: On the Milwaukee River*, 30.

<sup>35</sup> US Army Engineer, District Chicago, "Preliminary Report: Summary Flood Control Study of the Milwaukee River and Tributaries, Wisconsin," 5.

<sup>36</sup> Department of City Development, *Preliminary Report: On the Milwaukee River*, 30.

<sup>37</sup> US Army Engineer, District Chicago, "Preliminary Report: Summary Flood Control Study of the Milwaukee River and Tributaries, Wisconsin," 6.

<sup>38</sup> Milwaukee River Technical Study Committee, *The Milwaukee River: An Inventory of Its Problems, an Appraisal of Its Potentials*, 36.

<sup>39</sup> Milwaukee River Technical Study Committee, 36–38.

of water in pathways constructed by geologic and hydrologic processes over thousands of years and humans' desire to reside within these pathways, planners looked for engineered solutions.

Richard White in *The Organic Machine* demonstrates ways in which nature has acted according to its own rules and shaped human decisions.<sup>40</sup> White contends that the human world and the natural (non-human) world are not separate entities but intertwined and inseparable.<sup>41</sup> In addition, White demonstrated how the Columbia River has acted on its own accord. For example the river's tendency in maintaining an even velocity results in the widening or building up of the riverbed over time.<sup>42</sup> In order to understand nature and its role in history, White demonstrated the need to see the river as an "organic machine." White notes that the Columbia River was dammed to maximize profit, yet the hydrologic processes of river remind humans of their limited control over it in various ways, requiring human intervention to continually maintain the dams.<sup>43</sup>

The engineering fixes in the 1930s proved to be equally inadequate in the city of Glendale. However, rather than recognize the hydrologic process that made them fail, Glendale's solution to the flooding was another engineering fix. In the 1960s they constructed a concrete encasement for the creek beds. This strategy, common throughout the country in the 1960s, was in theory a way to accelerate water through flood areas before it overflowed the banks.<sup>44</sup> Jared Orsi in *Hazardous Metropolis* contends that failure to control nature has often reflected an overreliance on an engineering fix. Studying the Los Angeles River, he notes that city officials often assume that nature's chaos causes havoc only when engineers have not adequately prepared. The engineers' solution to flooding requires more bulldozers and

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<sup>40</sup> Richard White, *The Organic Machine: The Remaking of the Columbia River* (New York: Hill and Wang, 1996).

<sup>41</sup> White, ix, 59.

<sup>42</sup> White, 12.

<sup>43</sup> White, 112–13.

<sup>44</sup> Elaine Schmidt, "Restoring a River Channel," *Midwest Construction* 4, no. 12 (November 2001): 13; Alex P. LeGrand to Jim, "Lincoln Creek Flood Control Program," February 10, 1966, Henry W. Maier Administration 1960-1988, Box 83, Folder 21, UW-Milwaukee Libraries, Archives.

concrete.<sup>45</sup> D.W. Meinig in “The Beholding Eye” describes this as seeing the “Landscape as Problem.” From this viewpoint the person sees the flooding river as a condition that requires a correction. Every landscape requires some alteration to make it more efficient and pleasing to humans.<sup>46</sup> However, Gilbert White notes that engineering solutions may increase flooding because it often attracts real estate interests to develop more lands in the floodplains, causing more property damage.<sup>47</sup> During the fifties and sixties, Glendale followed this pattern and continued to develop land in the floodplains. By 1971, 200 homes were located in the 100-year flood plain.<sup>48</sup> Besides Glendale’s own attempts to improve the river landscape to meet its development interests, they and other expanding suburban communities along the Milwaukee River were interested in more grand engineering plans to control the Milwaukee River’s water flow in the northern part of the MRW. SEWRPC would lead the investigations.

Underneath SEWRPC’s umbrella were the Milwaukee River Technical River Study Committee and the Milwaukee County Milwaukee River Watershed Committee. These were all advisory committees that would present options and recommendations to the various jurisdictions. These committees studied and review the alternative plans for pollution abatement and flood control “in terms of engineering, economic, and legal feasibility, and how well each element satisfied the watershed development objectives.”<sup>49</sup> William Cronon in *Uncommon Ground* contends it is important to see beyond experts’ cultural views of nature to recognize other perspectives of nature to help us understand how our “ideal nature” in our heads represents

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<sup>45</sup> Jared Orsi, *Hazardous Metropolis: Flooding and Urban Ecology in Los Angeles* (Berkeley: University of California Press, 2004), 9.

<sup>46</sup> D.W. Meinig, “The Beholding Eye: Ten Versions of the Same Scene,” in *The Interpretation of Ordinary Landscapes: Geographical Essays* (New York: Oxford: Oxford University Press, 1979), 39–40.

<sup>47</sup> Rutherford H. Platt, *Open Land in Urban Illinois; Roles of the Citizen Advocate* (DeKalb, IL: Northern Illinois University Press, 1971), 28.

<sup>48</sup> Hayes, *Master Planners: Fifty Years of Regional Planning in Southeastern Wisconsin, 1960-2010*, 51.

<sup>49</sup> Southeastern Wisconsin Regional Planning Commission, “Comprehensive Milwaukee River Watershed Report Completed,” *Southeastern Wisconsin Regional Planning Commission Newsletter*, October 1971, 6.

a complex relationship with material nature. When we fail to see conflicting views of nature we often misunderstand the world and ourselves.<sup>50</sup> It is my contention that the failure to address cultural understandings of the natural and human built landscapes and how these concerns were intertwined with other interests resulted in the failure SEWRPC's engineering solutions. This in part may be a reflection of the various people appointed to the committees. Although representatives from various governmental jurisdictions throughout Southeastern Wisconsin and Fond du Lac and Sheboygan Counties were represented, the committees were heavily skewed toward urban, economic development interests over rural representation. Although SEWRPC contended they were only an advisory committee that would eventually present their findings to citizens at public hearings, their options for flood control focused on the engineering fixes from an urban perspective, while neglecting cultural concerns that reflected rural perceptions of human/environmental interactions. Thus, they may have neglected to examine acceptable solutions that would reflect rural conceptions of human interactions with the environment or failed to notice them because their perceptions were shaped by their own interests to transform the MRW's landscape.

One of the proposed engineering plans, which would be capable of containing any of the floods experienced in the 20<sup>th</sup> century, was the Saukville Diversion Channel. Representative Henry Reuss noted that the feasibility studies of the diversion channel would provide scientific facts whether the flood control was economically feasible.<sup>51</sup> The Diversion Channel would start along the Milwaukee River in Saukville and would divert waters 1.5 miles south of Port Washington to Lake Michigan.<sup>52</sup> The channel would effectively remove water from the river

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<sup>50</sup> William Cronon, ed., *Uncommon Ground: Toward Reinventing Nature* (New York: W.W. Norton & Co., 1995), 21–22.

<sup>51</sup> "Seek Completion of River Flood Survey in Late '63," *Sheboygan Press*, October 17, 1962, Newspaper Archive: Academic Library Edition.

<sup>52</sup> Milwaukee River Technical Study Committee, *The Milwaukee River: An Inventory of Its Problems, an Appraisal of Its Potentials*, 39.

when the water reached 4000cfs and send the additional water in a channel to Lake Michigan, just south of Port Washington. The plan at Saukville would provide flood protection for a flood with a discharge of 17,500cfs, which had an estimated frequency of once every 100 years (1% yearly chance), exceeding the two largest floods of record.<sup>53</sup> The channel would be 70-90 feet wide at the bottom and 390-1105 feet wide across the spoil banks at the top of the levees.<sup>54</sup> This diversion channel would be capable of diverting approximately 11000cfs from the Milwaukee River, helping to ensure that water, even at the height of the highest recorded flood in 1918, would remain in the river banks as it travelled to Lake Michigan.

According to the 1965 US Army Corps of Engineers Survey, the total cost of the diversion dam would be \$4,410,000 for construction, \$350,000 for land rights and easements, and \$591,000 for the construction of highway bridges over the diversion channel. In addition the channel would require approximately \$12,000 to maintain yearly. However, the US Army Corps in early 1964 said the channel could save \$181,000 in yearly flood damage. With the capital costs of the project amortized over many years, the benefits appeared to outweigh the costs.<sup>55</sup> However, as a result of rising inflation, costs would outweigh the benefits when it was considered in 1970.<sup>56</sup>

Support for the Saukville Diversion Channel was primarily supported by members of various river committees and residents impacted by the recent floods. For example, Leroy

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<sup>53</sup> Milwaukee River Technical Study Committee, 39; "Proposed Channel to Solve Ozaukee's Flood Problem," *Sheboygan Press*, February 9, 1961, Newspaper Archive: Academic Library Edition.

<sup>54</sup> US Army Engineer, District Chicago, "Preliminary Report: Summary Flood Control Study of the Milwaukee River and Tributaries, Wisconsin"; "Army Engineers Give Support to Milwaukee River Project," *Sheboygan Press*, January 6, 1965, Newspaper Archive: Academic Library Edition.

<sup>55</sup> "Army Engineers Give Support to Milwaukee River Project"; Richard W. Cutler, *Greater Milwaukee's Growing Pains, 1950-2000* (Milwaukee, WI: Milwaukee County Historical Society, 2001), 120-21; Milwaukee River Technical Study Committee, *The Milwaukee River: An Inventory of Its Problems, an Appraisal of Its Potentials*, 39.

<sup>56</sup> K.W. Bauer to Henry W. Maier, January 25, 1971, 4, Henry W. Maier Administration 1960-1988, Box 115, Folder 7, State Historical Society of Wisconsin.

Grossman, Chairman of the Milwaukee River Flood Control Committee supported the project.<sup>57</sup> Grossman, seemingly confident in the likely construction of the diversion channel, petitioned the Wisconsin Public Service Commission to act on behalf of petitioners in Saukville, Grafton, Mequon, Thiensville, River Hills, Brown Deer and Glendale.<sup>58</sup> The Mequon Thiensville Advancement Association and Irwin Unger expressed support of the diversion proposal to lessen the property damage experienced in the recent floods of 1959 and 1960 in letters sent to Representative Henry Reuss.<sup>59</sup> Members of the Milwaukee River Technical Study Committee also claimed the diversion channel may allow the City of Milwaukee more freedom in planning and executing river projects in downtown Milwaukee.<sup>60</sup> Originally, Congressman John Race appeared to support the channel, noting that the diversion channel would not impact existing fish and wildlife resources.<sup>61</sup> Representative Henry Reuss supported the multi-million dollar diversion channel, claiming that it was the best possible means to prevent yearly flooding of properties south of Saukville.<sup>62</sup>

Despite perceived benefits, the voice of those who opposed the construction of the Saukville Diversion Channel would defeat its passage. For example, Representative John Race, seemingly back tracking on his original comments that the diversion channel would be a good idea, called for more public hearings on the channel. Defending his apparent flip-flop, he mentioned that the channel was previously considered in the 1950s and that more development has occurred with the expectation that the channel was not being built. At these hearings local

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<sup>57</sup> "Seek Completion of River Flood Survey in Late '63."

<sup>58</sup> "Petition for Flood Control in Ozaukee," *Sheboygan Press*, March 17, 1964, Newspaper Archive: Academic Library Edition.

<sup>59</sup> Allen Goldman to Representative Henry Reuss, November 28, 1960, Henry Reuss Papers, Box 35, Folder 21, UW-Milwaukee Libraries, Archives; Irvin W. Unger to Congressman Henry S. Reuss, October 28, 1960, Henry Reuss Papers, Box 35, Folder 21, UW-Milwaukee Libraries, Archives.

<sup>60</sup> Milwaukee River Technical Study Committee, *The Milwaukee River: An Inventory of Its Problems, an Appraisal of Its Potentials*, 40.

<sup>61</sup> "Army Engineers Give Support to Milwaukee River Project."

<sup>62</sup> "Proposed Channel to Solve Ozaukee's Flood Problem."

residents in Ozaukee County spoke out against the plan for a “Big Ditch” splitting Ozaukee County in half north and south. In addition, Port Washington Mayor, Frank Meyer, defended the economic and property interests in his community claiming that Port Washington would be asked to pay for the ditch, but would not benefit, because it was not in the flood area (Port Washington is also outside of the MRW). In addition, he mentioned that residents were concerned with pollution that might enter Lake Michigan from the diversion channel, rather than be contained in the Milwaukee River Basin.<sup>63</sup>

Another concern of various committee members was the limited practically of the diversion channel. For example George Watts, a member of the Milwaukee River Watershed Committee, spoke negatively of the huge ditch and its limited use-value beyond flood control.<sup>64</sup> Also, SEWRPC desired a plan that would address water pollution concerns, open space and recreational needs, and precisely delineated floodplains and floodways to assist land control measures.<sup>65</sup> In addition Watts, SEWRPC, and the MDCD expressed concerns about restricting the water flow of the river during high water times because it would handicap the river’s ability to flush the river of debris and pollution. In addition, reducing the water flow may increase silting in the lower Milwaukee River.<sup>66</sup> Although WI Governor Warren Knowles originally expressed support of the Saukville Diversion plan, he was ultimately persuaded by SEWRPC, and perhaps the City of Milwaukee, to hold off on the start of the channel until SEWRPC completed its own study of a multi-use reservoir at Waubeka.<sup>67</sup>

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<sup>63</sup> “Rep. Race Told of Ozaukee Opposition to ‘Big Ditch,’” *Sheboygan Press*, February 13, 1965, Newspaper Archive: Academic Library Edition; “Race Asks for Public Hearing,” *Oshkosh Daily Northwestern*, February 15, 1965, Newspaper Archive: Academic Library Edition.

<sup>64</sup> George Watts, *Insurrection in Milwaukee: The Right to Rise* (Milwaukee, WI, Linden Design, 2003), 54; Cutler, *Greater Milwaukee’s Growing Pains, 1950-2000*, 121–22.

<sup>65</sup> Southeastern Wisconsin Regional Planning Commission, *Milwaukee River Watershed Planning Program Prospectus*, 40.

<sup>66</sup> Watts, *Insurrection in Milwaukee: The Right to Rise*, 54; Cutler, *Greater Milwaukee’s Growing Pains, 1950-2000*, 121–22; Department of City Development, *Preliminary Report: On the Milwaukee River*.

<sup>67</sup> Henry Reuss to George Berteau, July 6, 1971, Henry Reuss Papers, Box 60, Folder 9, UW-Milwaukee Libraries, Archives; Donald A. Schwartz to Colonel John C. Mattina, “Milwaukee River Flood Control Study File NCED-R,” August 20, 1964,

Matthew Klings notes that groups can frame their sense of place into a Utopian vision that reflects a very narrow vision.<sup>68</sup> Supporters of the Saukville Diversion plan appeared to hold the vision of a natural landscape that needed to be fixed or improved to keep the river in its banks, pleasing the residents along the river south of the diversion. These residents appeared to value the river for its aesthetic appeal to warrant a home overlooking the river. However, these interests required human labor to limit the MRW's "chaotic nature," especially during spring rains and snow thaws. From the perspective of the residents living near the proposed diversion channel, their natural landscape would be scarred by the construction of a "large ditch," in order to solve the suburbanites' problems. Thus, they appeared to view the diversion channel as an economic and aesthetic burden.

James D. Proctor argues, "the intrinsic value in nature implies that its worth is independent of its utility to humans; instrumental value implies that its worth depends on its ability to serve a human end."<sup>69</sup> SEWRPC studied the economic cost of the project, which viewed the instrumental value of property, reflecting an estimated cost of sale. In addition, lands that were not being "used or maintained" as defined by the people investigating the feasibility of the study, did not appear to recognize the intrinsic value of the land held by people who resided in the area. Furthermore, the channel or "big ditch" would have little utility or intrinsic value for them. Moreover, the development interest, expressed in part by SEWRPC, hoped for a multi-use flood control measure, rather than the single, flood control use. However, the Waubeka

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Henry W. Maier Administration 1960-1988, Box 83, Folder 20, UW-Milwaukee Libraries, Archives; Alex P. LeGrand to Mayor Maier, "Milwaukee River Flood Control Legislation," February 23, 1966, Henry W. Maier Administration 1960-1988, Box 83, Folder 21, UW-Milwaukee Libraries, Archives.

<sup>68</sup> Matthew W. Klings, *Emerald City: An Environmental History of Seattle*, Lamar Series in Western History (New Haven: Yale University Press, 2007), 264.

<sup>69</sup> James D. Proctor, "Whose Nature? The Contested Moral Terrain of Ancient Forests," in *Uncommon Ground: Rethinking the Human Place in Nature*, ed. William Cronon (New York: W. W. Norton, 1996), 281.

Reservoir, a multi-use project, would also reflect conflicting understandings of how best to shape the landscape.

The Waubeka Reservoir was the largest and most expensive engineering proposal suggested by SEWRPC to control water drainage in the MRW. The proposed construction of the Waubeka Reservoir drew the widest attention. It would include a 50-57 foot dam at an outlet of a natural valley, approximately a half-mile upstream from the village of Waubeka, Wisconsin. The dam would be capable of holding approximately 155,000 acre-feet of water (and acre foot is equivalent to a foot of water spread across an acre of land) and form a 10,400-acre lake with average depths between 15-40 feet. In addition, it would have the capability to expand to 12,200-acres during high water times to help contain water equivalent to highest floods of record.<sup>70</sup> Other potential projects suggested the Waubeka Reservoir could be utilized as a hydroelectric storage pond. Thus, water could be pumped from Lake Michigan to Waubeka in low-peak energy times and then reversed to lake Michigan during high-peak energy demands. In addition, this pumping station could also be utilized to maintain a relatively constant reservoir water level and/or additional water flow to the downstream.<sup>71</sup>

Harza Engineering, the firm who designed the Waubeka Reservoir, recommended the construction of a multi-purpose reservoir to control drainage and provide a place for water recreation. A new dam would contain the downward rush of floodwaters after snowmelts and heavy rains to limit flooding. It would also create a recreational lake serving residents and

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<sup>70</sup> Southeastern Wisconsin Regional Planning Commission, *A Comprehensive Plan for the Milwaukee River Watershed: Alternative Plans and Recommended Plan*, vol. 2 (Waukesha, WI: WI Department of Natural Resources: The US Department of Housing and Urban Development: US Environmental Protection Agency, 1971), 80, [http://www.sewrpc.org/SEWRPCFiles/Publications/pr/pr-013\\_vol-02\\_comp\\_plan\\_for\\_the\\_milwaukee\\_river\\_watershed.pdf](http://www.sewrpc.org/SEWRPCFiles/Publications/pr/pr-013_vol-02_comp_plan_for_the_milwaukee_river_watershed.pdf); Cutler, *Greater Milwaukee's Growing Pains, 1950-2000*, 123.

<sup>71</sup> R.W. Burwell, "Letter from R.W. Burwell, Regional Director, US Department of the Interior, Fish and Wildlife Service to District Engineer, US Army Engineer District Chicago, Dated June 8, 1964, Appendix E," in *Survey Report for Flood Control on Milwaukee River and Tributaries, Wisconsin* (Chicago: US Army Engineer District, Chicago, 1964), E-8; Herbert Moore, "New Idea: Pump Storage! A Multipurpose Source of Water for Public Supplies," (*File Clipping*) Water Works Engineering, April 1962.

tourists. Finally, the third advantage was that it could improve water quality downstream by increasing water flow of the Milwaukee River during low flow periods.<sup>72</sup> According to the SEWRPC the benefit-to-cost ratio was 1.37. The total cost of the dam was over 47 million dollars, but the annual benefit of eliminating flood damage, creating another space for water recreation activities, and other economic benefits from the construction of the water reservoir would more than compensate for the expenses. This had the best benefit-to-cost ratio of all the alternative flood control plans. In addition, if the reservoir could increase the water flow of the Milwaukee River during dry periods it could help to address the concerns of stagnant water in the City of Milwaukee.<sup>73</sup>

The largest support for the Waubeka Reservoir came from the community of Glendale, the community most frequently impacted by flooding of the Milwaukee River. Without the reservoir it was estimated that over 500 homes would continue to be in danger of flood damage, over 300 homes in Glendale alone.<sup>74</sup> In addition, the man-made lake would have the ability to generate \$1.2 million in recreational fishing and \$2.3 million in other recreational spending. This would potentially contribute to the Outdoor Recreation Action Plan (ORAP) passed during the Gaylord Nelson administration to develop land programs for recreation and preservation. In a letter to “boaters” governor Knowles supported additional funding to not only restore and protect lakes, but also to create lakes.<sup>75</sup> Moreover, George Watts, a critic of the Saukville Diversion

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<sup>72</sup> James C. Ringenoldous, “Flood and Pollution Problems of the Milwaukee River System” (Harza Engineering Company, October 1968), Izaak Walton League of America, Milwaukee Chapter, Box 2, Folder Milwaukee River Restoration Council, State Historical Society of Wisconsin; Southeastern Wisconsin Regional Planning Commission, *A Comprehensive Plan for the Milwaukee River Watershed: Alternative Plans and Recommended Plan*, 2: 82; “Town Port Civic Association Opposes Proposed Waubeka Dam,” *Sheboygan Press*, January 6, 1971, Newspaper Archive: Academic Library Edition.

<sup>73</sup> Southeastern Wisconsin Regional Planning Commission, *A Comprehensive Plan for the Milwaukee River Watershed: Alternative Plans and Recommended Plan*, Two: 74–78, 98; Bill Bulger to Mayor Henry Maier, “Report on Environmental Problems: Lecture #1 by H.C. Brockel,” February 12, 1971, Henry W. Maier Administration 1960-1988, Box 115, Folder 7, State Historical Society of Wisconsin; George Berteau to Honorable William A. Steiger, November 16, 1970, Henry Reuss Papers, Box 60, Folder 7, UW-Milwaukee Libraries, Archives.

<sup>74</sup> “Waubeka ‘Lake’ Rejected,” *Sheboygan Press*, November 18, 1970, Newspaper Archive: Academic Library Edition.

<sup>75</sup> Warren P. Knowles and Wisconsin Boaters, January 3, 1969, Warren P. Knowles Papers, Series 2142 General Correspondence, Box 30, Folder 3, State Historical Society of Wisconsin.

channel, commented that the Waubeka Reservoir could provide lakeside development, effectively expanding the property tax base of communities that bordered the proposed reservoir.<sup>76</sup>

Similar to the Saukville Diversion plan the most outspoken critics of the Waubeka reservoir were local residents. For example Joan Rosenberger, resident of Farmington, Wisconsin, argued that the plan was not worth drowning 3000 trees and acres of beautiful land. Both the Wisconsin Branch and the National Branch of the Sierra Club were willing to financially support efforts to preserve the Kettle Moraine habitat in the northern MRW.<sup>77</sup> Norbert Dettman reminded people that the residents of Farmington had been fighting the plans for a reservoir since the 1930s. They blamed the “uninformed Milwaukee politicians” for their failure to recognize that the federal Works Progress Administration and Wisconsin Public Service Commission rejected plans for a reservoir multiple times since 1938. Others from Washington County mentioned their desire to maintain the rural character of the region.<sup>78</sup> Moreover farmers and landowners argued they would be flooded out “just to provide recreation to the people from the Milwaukee Area.”<sup>79</sup> Richard Cutler in *Greater Milwaukee’s Growing Pains* claimed the most effective opposition came from farmers and local officials who opposed the lake because it would remove nineteen square miles from the tax rolls. They did not believe the Harza

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<sup>76</sup> Watts, *Insurrection in Milwaukee: The Right to Rise*, 56.

<sup>77</sup> “Concerned Citizens Discuss Proposed Reservoir, I-Road,” *Sheboygan Press*, March 15, 1971, Newspaper Archive: Academic Library Edition.

<sup>78</sup> “Farmington Area Residents Seem Against Reservoir,” *Fond Du Lac Commonwealth Reporter*, November 14, 1970, Newspaper Archive: Academic Library Edition.

<sup>79</sup> “Reservoir Dam Proposed Again at Waubeka,” *Sheboygan Press*, January 27, 1972, Newspaper Archive: Academic Library Edition, <https://access.newspaperarchive.com/us/wisconsin/sheboygan/sheboygan-press/1972/01-27/page-32?tag=reservoir&rtserp=tags/reservoir?psi=103&pci=7&ndt=ex&pd=27&py=1972&pm=1&psb=dateasc&search=ymd>; Emerald Valley Association, lake Twelve to Henry Reuss, August 30, 1971, Henry Reuss Papers, Box 60, Folder 7, UW-Milwaukee Libraries, Archives.

Engineer's forecast that the lake would attract new recreational facilities more valuable than the lost tax base.<sup>80</sup>

Also, ecological interests spoke up against the proposed Waubeka Reservoir. For example Philip Whitford and others opposed the reservoir, arguing soils are such that the dam would silt up quickly and the waters would heat up so it would only support "rough fish." He estimated the reservoir would have a 20-year recreation value before filling with cattails. In addition, Whitford also noted concern that the studies did not include a groundwater impact survey to determine if surrounding lands would be turned into swamplands.<sup>81</sup> Also, significant to the opposition of the Waubeka Reservoir, working behind the scenes, was George Watts. He claimed in his book *Insurrection in Milwaukee*, that he was instrumental in the eventual Watershed Committee vote against the dam. George Watts argues his main reason against the reservoir was that he believed the river environmental corridor would be at risk if there was no longer concern of the 100-year flood. Although many critics argued that the reservoir would not work as planned, he argued that it might work too well. If land speculators received word that there was no longer a flood threat, they would be eager to develop the flood plain and effectively contribute to urban sprawl at the expense of the environmental corridor.<sup>82</sup>

The lack of support from Representative Henry Reuss and the US Army Corps of Engineers likely sealed the deal. Although Reuss conceded the benefit-to-cost ratio works in favor of the reservoir, the recreational benefits exceeded the flood and energy benefits lessened the chances for federal funding.<sup>83</sup> Without likely federal support Congressman Reuss objected to

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<sup>80</sup> Cutler, *Greater Milwaukee's Growing Pains, 1950-2000*, 123–24.

<sup>81</sup> Philip B. Whitford, "An Ecological View of Man-Made Lakes and the Milwaukee River Dam Proposal" (Earth Day Presentation, April 22, 1970), Henry Reuss Papers, Box 60, Folder 7, UW-Milwaukee Libraries, Archives; Hayes, *Master Planners: Fifty Years of Regional Planning in Southeastern Wisconsin, 1960-2010*, 54; Francis Walter to Henry Reuss, September 17, 1971, Henry Reuss Papers, Box 60, Folder 7, UW-Milwaukee Libraries, Archives.

<sup>82</sup> Watts, *Insurrection in Milwaukee: The Right to Rise*, 56.

<sup>83</sup> Walter to Reuss, September 17, 1971.

the proposal arguing northern MRW residents should not have to pay for a project they did not want, but that would directly impact their landscape. Moreover, Reuss also contended that land speculators, seeking lakefront real estate, would benefit the most from the publically financed Waubeka Reservoir.<sup>84</sup>

The failure to build support or “engineer” support for the Waubeka reservoir in part reflects interest to spread an urban perspective of humans’ relationship with the natural landscape versus a rural perspective. The recreation interest in the Waubeka reservoir would benefit those who saw the outdoors for boating and water sports at the expense of those that would rather hunt whitetail deer, waterfowl, and other wild game in the existing wetlands slated to be drowned by the reservoir. Others desired retirement homes overlooking the countryside or the protection of agricultural lands, while others envisioned lakeside properties and future economic development. Ecologists viewed their relationship with nature honoring the centuries that wetlands and floodplains labored to absorb the snowmelts and drenching rains, while suburban residents desired human labor to engineer and construct a solution to contain the drainage of the MRW in a manner that protected their property interests within the floodplains during high water flows. From the perspective of suburbanites, agricultural opportunities and rural landscapes were in plentiful supply, but the need for suburban landscapes was not. The need to create spaces for suburban landscapes that controlled the drainage of the Milwaukee River was valued more than the cultural ties to more rural landscape.

Failure to enact either engineering solution resulted in the eventual acceptance by the various governing bodies to change the use of lands in the floodplains to account for regular flooding. This policy was also a product of the National Flood Insurance Act of 1968 requiring

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<sup>84</sup> Reuss to Berteau, July 6, 1971; “Slim Hope for Financing Proposed Waubeka Dam,” *Sheboygan Press*, September 24, 1971, Newspaper Archive: Academic Library Edition.

the mapping and zoning of flood prone areas to limit flood damage. As a result the communities gradually began removing structures in the floodplain and returning the lands to open space.<sup>85</sup> Furthermore the Wisconsin Legislature in 1971, the year SEWRPC published its final Milwaukee River Watershed report, enacted Section 87.30 requiring counties and municipalities throughout Wisconsin to zone against development in floodplains.<sup>86</sup> One of the most important tasks of SEWRPC was the identification and delineation of those areas of the region in which concentrations of scenic, recreational, and historical resources could be preserved and protected. These zoning efforts recognized that the natural resource base was essential to the maintenance of the ecological balance and the natural beauty of the watershed. Most of the environmental corridors lie within the Northern Kettle Moraines or northern MRW, surrounding lakes, and along major stream valleys.<sup>87</sup> Although the Waubeka site was eventually voted down, SEWRPC recommended the Waubeka site be zoned primarily as open space, should development factors and public attitudes warrant or necessitate a reservoir in the future.<sup>88</sup>

The idea of the environmental corridor was not new. John Gurda and Lorne Platt note Charles Whitnall's efforts to create an environmental corridor around the city of Milwaukee following the path of its waterways. Preserving these areas would provide the urban residents an escape from what Whitnall viewed as the deplorable conditions ubiquitous to the city's landscape.<sup>89</sup> Fifty years later these ideas continued to garner support. For instance Walter Rowlands, University of Wisconsin agriculture professor, argued it is better to keep people out of

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<sup>85</sup> Bauer to Henry W. Maier, January 25, 1971.

<sup>86</sup> Cutler, *Greater Milwaukee's Growing Pains, 1950-2000*, 124–25.

<sup>87</sup> Southeastern Wisconsin Regional Planning Commission, *A Comprehensive Plan for the Milwaukee River Watershed: Inventory Findings and Forecasts*, One: 73–76.

<sup>88</sup> Southeastern Wisconsin Regional Planning Commission, "Comprehensive Milwaukee River Watershed Report Completed," 14–15; Southeastern Wisconsin Regional Planning Commission, *A Comprehensive Plan for the Milwaukee River Watershed: Alternative Plans and Recommended Plan*, 2: 376.

<sup>89</sup> Platt, *Open Land in Urban Illinois; Roles of the Citizen Advocate*, 780; Gurda, *The Making of Milwaukee*, 268–71.

the flood path. In addition, David Fonesca Jr., SEWRPC administrator, defended the “Stream’s Right” to its natural flood plain at periodic intervals. Fonesca supported more zoning in floodplains to prevent construction in these areas adding that residential, business, and agricultural interests can work around floodplains rather than in them.<sup>90</sup>

However, many residents in the floodplains, noting the failure of the government to support their interest for either the Waubeka Reservoir and Saukville Diversion, criticized what appeared to them as the government’s lack of concern for their property rights and the apparent desire of an over anxious government to take land out of private interests.<sup>91</sup> Furthermore, the City of Glendale passed a resolution against the SEWRPC proposal to reject the Waubeka Reservoir and Saukville Diversion and recommend the environmental corridor.<sup>92</sup> Here it is important to state that floodplains are both ecologically and politically defined. Developers who benefit from the construction of buildings and the sale of lands, are not burdened by the cost of flood damage because these costs are often dispersed to taxpayers of the state, county or municipal government agencies when they provide relief to flood victims. Thus, there appears to be a continued struggle between development interests to define the flood plain as narrow as possible and other interests who argue it should be widened or maintained. George Watts voted against the Waubeka Reservoir in part because flood risks could prevent urban development and protect the environmental corridor from developmental interests. However, already in 1973, development interests proposed a bill to the WI state government that passed the Senate to shrink

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<sup>90</sup> “Flood Threats, Adequate Outdoor Facilities Aired,” *Kenosha News*, November 22, 1963, Newspaper Archive: Academic Library Edition.

<sup>91</sup> “Informational Meetings Set on Proposed Reservoir at Waubeka,” *Sheboygan Press*, June 15, 1971, Newspaper Archive: Academic Library Edition; “Proposed Waubeka Dam Discussed at Cedarburg,” *Sheboygan Press*, June 26, 1971, Newspaper Archive: Academic Library Edition; Rali Albright, “SEWRPC ‘Land Grab!,” (File Clipping), June 2, 1971, sec. Letter to the Editor, Henry Reuss Papers, Box 60, Folder 7, UW-Milwaukee Libraries, Archives.

<sup>92</sup> Mayor Robert C. Cayze and Glendale Common Council, “City of Glendale: Resolution,” May 11, 1971, Henry Reuss Papers, Box 60, Folder 7, UW-Milwaukee Libraries, Archives.

the defined flood plain to 10-years rather than 100-years.<sup>93</sup> With or without the Waubeka Reservoir the battle over the rights to decide how the floodplain is utilized continues.

In conclusion Ted Steinberg in *Acts of God* emphasizes how humans often rely on a narrow perspective when attempting to control nature and as a result failed to reach intended goals or yielded unintended consequences. He argues that historians must not always recognize nature's uncontrollability, but must instead pay attention to the ways in which natural disasters may actually be a product of human decisions.<sup>94</sup> Some people may look at the debates over the Waubeka and Saukville diversion plans as an example of the people who resided in the northern MRW ability to push back against plans to shape the landscape for the benefit of suburban interests at their expense. However, as Steinberg notes, nature's uncontrollable characteristics are sometimes used to mask human decisions that impact some at the expense of others.<sup>95</sup> Although areas are set aside to allow the Milwaukee River to overflow its banks in some places, deciding to forego further holistic actions to lessen the chances of flood damage across the MRW remains and will likely be extenuated with climatic changes.

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<sup>93</sup> Edward J. Hayes to Mr. George Whittow, "S-445 - Floodlands," July 9, 1973, Henry W. Maier Administration 1960-1988, Box 83, Folder 20, UW-Milwaukee Libraries, Archives.

<sup>94</sup> Ted Steinberg, *Acts of God: The Unnatural History of Natural Disaster in America*, Second (Oxford: Oxford University Press, 2000), xxi.

<sup>95</sup> Steinberg, xxi-xxii.